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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,144

06/14/2006

Sven Bjorkgard

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EXAMINER

FREEDMAN, LAURA

ART UNIT

PAPER NUMBER

3616

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,144	<b>Applicant(s)</b> BJORKGARD, SVEN	
	<b>Examiner</b> LAURA FREEDMAN	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/23/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The preliminary amendment filed 08 December 2005, in which claims 1-7 were amended, has been entered.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the torsion element mounted *in* the chassis (claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities: "axel" and "axels" should be changed to --axle-- and --axles--, respectively. Appropriate correction is required.
4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if

the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Objections***

5. Claims 1-3, 6, and 7 are objected to because of the following informalities:

"(drop links)" should be deleted (claim 1, line 8);

"attached to *the* second end portions of the first arms" should be changed to --  
attached to second end portions of the first arms-- (claim 1, line 9);

"spring/suspension elements" should be rephrased to remove the "/" (claims 1-3,  
6);

"*the* second member" should be changed to --a second member-- (claim 1, line  
13);

"*the* second end portion" should be changed to --second end portions-- (claim 1,  
line 17);

"*the* corresponding wheel" should be changed to --a corresponding wheel--  
(claim 2, line 2);

"*the* spring/suspension connection" should be changed to --a spring/suspension  
connection-- (claim 6, line 2);

"pressure gas chamber" should be changed to --pressure *in* gas chamber--  
(claim 6, line 5);

a transitional word, such as "wherein", should be added between "claim 6" and "a  
membrane", so as to read something like this, "according to claim 6, *wherein* a  
membrane" (claim 7, lines 1-2). Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regards to claim 2, it is unclear what members of the spring/suspension elements are doing in a first direction in relation to each other (lines 3-4). This portion of the claim should be re-written to better claim this feature.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by VanDenberg et al. (5,540,454). VanDenberg et al. disclose a device able to connect a wheel axle housing with a chassis, comprising:

- Stabilizer having a rod shaped torsion element (for example, including lower tube #17) able to rotate along its longitudinal axis (has the ability to so perform)
- Two first arms (for example, including rocker beams #47) running in a crosswise direction in relation to torsion element and having first end portions (for example,

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including left portion in figure 2) rigidly attached to corresponding end portions of torsion element (for example, rocker beams #47 attached to lower tube #17 via pivot brackets #45 at pivot pins #46)

- Two second arms (for example, including axle seats #62) having first end portions (for example, including mounting flanges #63) articulatedly attached to second end portions (for example, including right portion in figure 2) of the first arms (for example, including attached to rocker beams #47 at hinge pins #64)
- The arms (for example, including #47, 62) extend at an angle in relation to the longitudinal axis of torsion element (for example, as can be seen in figures 2, 3)
- Two spring/suspension elements (for example, including linear actuators #98) with a first member (for example, including piston #100) connected with the wheel axle housing (for example, connection through various brackets and links can be seen in figures 2, 3), and a second member (for example, including cylinder #99) connected to the chassis (for example, via connection at mounting pin #41)
- The members (for example, including #99, 100) are able to have reciprocal resilient movement (for example, movement can be seen in figures 5, 6) and are able to transfer a portion of the chassis' weight to the wheel axle housing (have the ability to so perform)
- The torsion element mounted in the chassis (to same extent as applicant's claimed invention; can be seen in figures 1-3)

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- Second end portions (for example, including vertical flanges #73) of second arms are connected to the wheel axle housing (for example, including axle #78) and extend essentially vertically up therefrom (for example, can be seen in figures 2-4)
- Third arms (for example, including actuator beams #87) having first end portions (for example, including mounting flanges #91) rigidly attached to the corresponding end portions of the torsion element (for example, attached to lower tube #17 at pivot pin #95), and second end portions (for example, including inner flanges #96) connected with the first member (for example, connected to piston #100 at bolt #97)
- The wheel axle housing is able to be raised such that a corresponding wheel (for example, including #11) does not touch the ground (for example, as can be seen in figures 5, 6)
- The spring/suspension elements comprise a force exerting means (for example, including interaction between piston #100, cylinder #99, and associated hydraulic/pneumatic components) able to move the members reciprocally in a first direction (for example, as can be seen in figures 5, 6)
- The torsion element is arranged on the side of the wheel axle housing that is directed towards the vehicle's midsection (for example, lower tube #17 is arranged to the left of the axle #78, as can be seen in figures 2, 3, which is toward the vehicle's midsection)
- The second member is articulately connected with the chassis (for example, at mounting pin #41)



***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over VanDenberg et al. (5,540,454) as applied to claims 1, 2, 4, and 5 above, and further in view of French Patent Document (FR 1.299.215). VanDenberg et al. do not disclose the particulars of the linear actuators, other than they can either be hydraulic or pneumatic (including #98), and that pressure applied against pistons (including #100) moves the pistons forward and causes movement of associated components (including columns 8-9). While it is old and well known in the art that an increase in gas pressure in a chamber formed between the piston (for example, including #100) and the cylinder (for example, including #99) of a linear actuator (for example, including #98) would cause movement of the members (for example, including #99, 100) in a first direction (for example, as can be seen in figures 5, 6), French Patent Document ('215) also teaches a pneumatic spring/suspension element for a vehicle comprising a pressure gas chamber, force exerting means, pressurized gas source, reciprocal movement of actuator members, membrane defining pressure chamber, and other features (see contents of translation provided by applicant in Information Disclosure Statement dated 23 February 2006). It would have been obvious to one skilled in the art at the time the invention was made to modify the spring/suspension elements to include the features

set forth in claims 3, 6, and 7, as taught by French Patent Document ('215), so as to retract the wheels of a vehicle using a pneumatic suspension system. Further, applying a known technique to improve similar devices in the same way, or to a known device ready for improvement, would yield predictable results.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art discloses alone, or in combination, a device for connecting a wheel axle housing with a chassis of a vehicle, comprising a stabilizer, arms, and spring/suspension elements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA FREEDMAN whose telephone number is 571-272-2442. The examiner can normally be reached on Monday-Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laura Freedman  
Patent Examiner  
Art Unit 3616

/Kevin Hurley/  
Acting SPE of Art Unit 3616